

WHAT IS CLAIMED IS:

1. Electronic tracking system for a combination of sporting articles consisting of more than one sporting article, incorporating at least two code transmitters assigned to at least two structurally separate sporting articles, characterised in that the code transmitters or their data can be contactlessly detected by at least one separate control unit.
2. Electronic tracking system as claimed in claim 1, characterised in that the control unit checks and detects whether at least individual sporting articles of the combination of sporting articles belong to one another and are correctly matched with one another.
3. Electronic tracking system as claimed in claim 1, characterised in that a maximum detection range is 3 m, in particular 1 m.
4. Electronic tracking system as claimed in claim 1, characterised in that at least one of the code transmitters is provided in the form of a transponder.
5. Electronic tracking system as claimed in claim 4, characterised in that the transponder does not have a battery.
6. Electronic tracking system as claimed in claim 4, characterised in that the transponder is connected to a power supply unit.
7. Electronic tracking system as claimed in claim 4, characterised in that the

transponder incorporates a memory device with a read-write memory and/or a read-only memory (ROM).

8. Electronic tracking system as claimed in claim 4, characterised in that the transponder has a computer system, in particular a micro-controller and a memory device.

9. Electronic tracking system as claimed in claim 1, characterised in that at least one of the code transmitters is integrated in a board-type runner device.

10. Electronic tracking system as claimed in claim 1, characterised in that at least one of the code transmitters is integrated in a sport shoe.

11. Electronic tracking system as claimed in claim 1, characterised in that at least one of the code transmitters is integrated in a retaining mechanism of a sport shoe.

12. Electronic tracking system as claimed in claim 1, characterised in that one of the code transmitters has an active transmitter unit for electromagnetic waves.

13. Electronic tracking system as claimed in claim 1, characterised in that at least one of the code transmitters is designed to operate a one-way or two-way communication with other code transmitters and/or the control unit.

14. Electronic tracking system as claimed in claim 1, characterised in that the control unit is a software-driven, commercially available portable computer unit.

15. Electronic tracking system as claimed in claim 1, characterised in that the control unit is provided in the form of a computer unit with at least one interface for local or remote transmission of signals and data via a local-area or global network.

16. Electronic tracking system as claimed in claim 15, characterised in that the local-area or global network is a radio network.

17. Electronic tracking system as claimed in claim 1, characterised in that the control unit is provided in the form of a so-called palmtop, handheld computer or a mobile telephone.

18. Electronic tracking system as claimed in claim 1, characterised in that the control unit is provided in the form of a computer unit which can be worn on the human body and supplied on an autarchical basis by electric mains networks or a separate power supply, preferably in the form of a wrist watch or a so-called wrist-top-computer.

19. Electronic tracking system as claimed in claim 1, characterised in that the control unit is provided in the form of a software-driven mobile telephone for UMTS mobile telephone networks.

20. Electronic tracking system as claimed in claim 1, characterised in that the control unit has a transmitter and/or receiver unit for electromagnetic waves which can be received and/or transmitted from the code transmitters.

21. Electronic tracking system as claimed in claim 20, characterised in that the transmitter and/or receiver unit has an electric coil.

22. Electronic tracking system as claimed in claim 1, characterised in that several code transmitters of specific sporting articles which belong together or are intended to be used together have a code that can not be mistaken for those of other sporting article groups.

23. Electronic tracking system as claimed in claim 1, characterised in that at least one of the code transmitters assigned to the retaining mechanism contains and displays data relating to the properties and/or the settings of the retaining mechanism.

24. Electronic tracking system as claimed in claim 1, characterised in that at least one of the code transmitters assigned to a sport shoe contains and displays data relating to the properties and/or settings of the sport shoe.

25. Electronic tracking system as claimed in claim 1, characterised in that at least one of the code transmitters assigned to a board-type runner device contains and displays data relating to the properties and/or settings of the board-type runner device.

26. Electronic tracking system as claimed in claim 1, characterised in that at least one of the code transmitters contains and displays physiological and/or performance-related data pertaining to the user or operator.

27. Electronic tracking system as claimed in claim 1, characterised in that the

control unit can be worn on the body and contains and displays physiological and/or performance-related user pertaining to the user or operator.

28. Electronic tracking system as claimed in claim 1, characterised in that the control unit is stationary and is disposed in front of or in an access area to sports facilities, lifts or pistes.

29. Electronic tracking system as claimed in claim 1, characterised in that the control unit has a visual and/or acoustic output device for issuing warnings and/or information.

30. Electronic tracking system as claimed in claim 1, characterised in that at least one of the sporting articles has at least one visual and/or acoustic output device for issuing warnings and/or information.

31. Electronic tracking system as claimed in claim 1, characterised in that at least one of the code transmitters contains and displays personal data and owner-related data.

32. Electronic tracking system as claimed in claim 1, characterised in that the control unit checks the data of at least one code transmitter of a sport shoe and the data of the at least one code transmitter of a retaining mechanism to ascertain whether they are being used correctly or that this combination belongs together.

33. Electronic tracking system as claimed in claim 1, characterised in that the

control unit checks the data of the code transmitter of a retaining mechanism and the data of the code transmitter of a user or the data of a personal, user-side control unit to ensure that it is being correctly used or belongs to the same set.

34. Electronic tracking system as claimed in claim 1, characterised in that the control unit establishes a connection via a standard communication interface and uploads and/or downloads from a public communication network, for example the Internet.

35. Electronic tracking system as claimed in claim 1, characterised in that the data of a least one code transmitter contains codes or pointers to data sets stored in the control unit and/or in an external data network.

36. Electronic tracking system as claimed in claim 1, characterised in that the data of the code transmitters can be fixed and/or edited by an authorised point exclusively.

37. Electronic tracking system as claimed in claim 1, characterised in that at least one of the code transmitters is connected to at least one sensor for detecting system-related parameters or changing parameter values.

38. Electronic tracking system as claimed in claim 37, characterised in that the sensor is designed to detect a release force of the retaining mechanism, in particular to detect a Z-value setting of a safety ski binding.

39. Electronic tracking system as claimed in claim 1, characterised in that the

control unit may be programmed to interrogate the code transmitters on a periodically recurring basis if necessary and to process this data on the basis of or assisted by software.

40. Electronic tracking system for a combination of sporting articles consisting of more than one sporting article, incorporating at least two code transmitters which are assigned to at least two structurally separate sporting articles, characterised in that a data transmission in a network between the code transmitters and a separate control unit via encryption modules is unmistakable or takes account of the fact that predefined sporting articles belong together.

41. Electronic tracking system as claimed in claim 40, characterised in that at least one of the code transmitters has a transmitter and/or receiver unit, for example an antenna or an electric coil, which is provided on the integrated circuit thereof or externally.

42. Electronic tracking system as claimed in claim 1, characterised in that at least one of the code transmitters is used to characterised sporting articles designed for use in pairs, specifically intended for use on the left and/or right.

43. Electronic tracking system as claimed in claim 1, characterised in that the control unit distinguishes between a sporting article intended for use on the right-hand side and/or the left-hand side and checks that they are being used correctly.

44. Electronic tracking system as claimed in claim 1, characterised in that a code transmitter and/or the control unit assigned to a sport shoe and/or a board-type runner device

intended for use in a pair checks to ascertain that the sporting articles are being used correctly, in particular that at least one board-type runner device is being used on the designated side.

45. Electronic tracking system as claimed in claim 1, characterised in that at least one of the code transmitters and/or the control unit keeps a constant log of amended data and stores at least the last up to date set of data in a memory device.

46. Electronic tracking system as claimed in claim 1, characterised in that at least one of the sporting articles has an acoustic and/or visual output device for signalling a theft.

47. Electronic tracking system as claimed in claim 1, characterised in that a loose layer of highly permeable ferrite pigments or a film of ferrite is disposed between metallic elements of the sporting article and an immediately adjacent code transmitter.

48. Electronic tracking system as claimed in claim 1, characterised in that at least one of the code transmitters is affixed to the sporting article so that it can be detached if necessary.

49. Electronic tracking system as claimed in claim 1, characterised in that the code transmitter is affixed to a sporting article by a non-positive connection, for example by ultrasonic welding, vibration welding, friction welding, laser welding, bonding or similar, so that it can not be detached.



50. Application of an electronic tracking system as claimed in one or more of the preceding claims

- a) for protecting against and deterring theft
- b) and/or for tracking stolen sporting articles from a combination of sporting articles
- c) and/or for enhancing the safety of a user
- d) and/or for automating and/or improving logistics during (I) production and/or storage and/or (II) retailing and/or (III) assembly and/or (IV) hire or lease and/or (V) maintenance and inspection
- e) and/or for providing contactless authorisation to enter sports facilities and/or lifts and/or pistes.

51. Electronic tracking system for a combination of sporting articles consisting of more than one sporting article, incorporating at least two code transmitters assigned to at least two structurally separate sporting articles, characterised in that the code transmitters are connected to a control unit via a contactless communication link and the control unit

- a) records the codes of sporting articles belonging to a combination of sporting articles and/or
- b) forwards a code designating the various sporting articles as belonging to a combination of sporting articles to the code transmitters of these sporting articles.

52. Electronic tracking system for a combination of sporting articles consisting of more than one sporting article, comprising at least two code transmitters assigned to at least two structurally separate sporting articles, characterised in that the code transmitters and the control unit are able to communicate via a contactless communication link and

communication between the code transmitters and/or at least one of the code transmitters and the control unit is possible over a range of 30.

53. Electronic tracking system as claimed in claim 52, characterised in that a reception sensitivity and/or a transmission range of the code transmitters is or can be set to a maximum communication distance of approximately 1m.

54. Electronic tracking system as claimed in claim 52, characterised in that a reception range and/or a transmission sensitivity of the control unit is or can be set to a maximum communication distance of approximately 1 m from a code transmitter.

55. Electronic tracking system as claimed in claim 52, characterised in that a communication interface of at least one code transmitter and/or a communication interface of the control unit co-operates with an encryption and/or decryption system.

56. Electronic tracking system as claimed in claim 52, characterised in that at least one code transmitter and/or the control unit has a distance-measuring system for determining the distance from a possible communication response point.

57. Electronic tracking system as claimed in claim 52, characterised in that the control unit has a programming mode, by means of which the code transmitters of the sporting articles belonging to a combination of sporting articles can be automatically detected.

58. Electronic tracking system as claimed in claim 52, characterised in that the control unit has a programming mode, by means of which the code transmitters of sporting articles belonging to a combination of sporting articles can be programmed with unmistakable codes.